

ABSTRACT OF THE DISCLOSURE

A method for manufacturing a SiC device embraces (a) depositing a polysilicon film above a SiC substrate; (b) delineating the polysilicon film into required pattern; and (c) annealing the SiC substrate in a water rich ambient to selectively grow a thick localized thermal oxide film above the SiC substrate. At the surface of SiC substrate, source/drain regions and substrate contact region are formed. In the water rich ambient, the H₂O partial pressure is so maintained that it is more than 0.95.